

## APPENDIX C. AGENCY LETTERS



### United States Department of the Interior Fish and Wildlife Service



Bloomington Field Office (ES)  
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Bloomington, IN 47403-2121  
Phone: (812) 334-4261 Fax: (812) 334-4273

January 6, 2012

Mr. Philip Marshall  
Indiana DNR, Division of Entomology and Plant Pathology  
402 West Washington Street, Room 290  
Indianapolis, Indiana 46204

Dear Mr. Marshall:

The U.S. Fish and Wildlife Service (FWS) has reviewed your letter of December 20, 2011 regarding the 2012 gypsy moth treatment program for 8 sites in 4 Indiana counties (Lake, Kosciusko, Fulton and Porter). We are submitting the following comments on the 2012 program. These comments have been prepared under the authority of the Endangered Species Act of 1973, and are consistent with the intent of the National Environmental Policy Act of 1969.

The plan submitted in your letter includes aerial spraying of mating disruption pheromone flakes (Disrupt II) at 7 sites (17,203 acres total), and aerial spraying of *Bacillus thuringiensis* biological control (Btk) at 1 site in Porter County (487 acres) which we have reviewed previously.

#### Endangered Butterflies

Spraying with *Bacillus thuringiensis* (Bt) is of concern for 2 federally endangered species of Lepidoptera in Indiana, the Karner blue butterfly (*Lycaeides melissa samuelis*) and Mitchell's satyr butterfly (*Neonympha mitchellii*). The occurrences and ranges of these species have not changed since our previous reviews of the gypsy moth program. Neither species is known to occur near any of the 2012 treatment sites. Treatment with Disrupt II pheromone flakes is considered to be highly specific for gypsy moths and is not known to have adverse impacts on the federally listed butterflies.

#### Other Endangered Species

The proposed treatment sites are within the range of the federally endangered Indiana bat (*Myotis sodalis*) (entire state) and clubshell mussel (*Pleurobema clava*) (Kosciusko and Fulton Counties), and the federally threatened copperbelly water snake (*Nerodia erythrogaster neglecta*) (Kosciusko County). In these counties the clubshell is found only in the Tippecanoe River and the copperbelly water snake records are from wetlands associated with natural lakes which are not near the treatment areas.

Indiana bats hibernate in caves then disperse to reproduce and forage in relatively undisturbed forested areas associated with water resources during spring and summer. Young are raised in nursery colony roosts in trees, typically near drainageways in undeveloped areas. Prior to hibernation Indiana bats feed intensively around forest near hibernacula to build up adequate fat reserves to survive hibernation.

The diet of Indiana bats consists entirely of insects, and based on previous studies they appear to be somewhat opportunistic feeders. Some studies have found lepidopterans as a major dietary component. It is possible that under some circumstances extensive elimination of lepidopterans over a large habitat area has the potential to adversely affect the food base of an Indiana bat nursery colony. The 2012 Btk aerial treatment site affects a relatively small area of Indiana bat summer habitat.

The FWS concludes that the federally assisted 2012 gypsy moth program is not likely to adversely affect any of these federally listed species. This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. If project plans are changed significantly, please contact our office for further consultation.

Some 2012 sites are within the range of federal candidate species: the eastern massasauga rattlesnake (*Sistrurus catenatus*) (Kosciusko and Porter Counties), sheepnose (*Plethobasus cyphus*) and rabbitsfoot (*Quadrula cyplindarica*) mussels (Fulton County), and rayed bean mussel (*Villosa fabalis*) (Fulton and Kosciusko Counties). Candidate species are not afforded protection under the Endangered Species Act, but these species may be proposed for listing in the future.

For further discussion, please contact Mike Litwin at (812) 334-4261 ext. 205.

Sincerely yours,



Scott E. Pruitt  
Supervisor

cc: Christie Kiefer, Indiana Division of Fish and Wildlife, Indianapolis, IN  
USFWS, Chesterton, IN

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**State of Indiana  
DEPARTMENT OF NATURAL RESOURCES  
Division of Fish and Wildlife**

**Early Coordination/Environmental Assessment**

**DNR #:** ER-16101 **Request Received:** January 3, 2012

**Requestor:** Indiana Department of Natural Resources  
Philip T Marshall  
Division of Entomology & Plant Pathology  
402 West Washington Street, Room W290  
Indianapolis, IN 46204

**Project:** 2012 Proposed Gypsy Moth Treatment Sites

**County/Site info:** Fulton - Kosciusko - Lake - Porter

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

**Regulatory Assessment:** Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.

**Natural Heritage Database:** The Natural Heritage Program's data have been checked.  
The following state listed plants, insects, animals, fish, mussels, and significant natural communities have been documented within 1/2 mile of the treatment sites, as indicated (\*NOTE: SE=state endangered, ST=state threatened, SR=state rare, SC=special concern, FE=federally endangered, FT=federally threatened, FC=federal candidate).  
The Division of Nature Preserves does not anticipate any impacts to the plants, insects, or natural communities as a result of this project.

PORTER COUNTY: Cobbs Corner 12: no natural heritage element records

**FULTON COUNTY:**

- 1) Rochester NW 12: no natural heritage element records
- 2) Rochester South 12: Barn owl, SE (animal)
- 3) Rochester North 12:
  - Plants: Eastern featherbells, ST; Fleshy hawthorn, SR
  - Fish: Gilt darter, SE
  - Mussels: Clubshell, SE/FE; Northern riffleshell, SE/FE; Sheepnose, SE/FC; Rabbitsfoot, SE; Rayed bean, SC/FC; Round hickorynut, SC; Kidneyshell, SC; Wavyrayed lampmussel, SC; Purple Lilliput, SC

**KOSCIUSKO COUNTY: 150 West 12**

- Plant: Small purple fringed orchid, SR
- Mussels: Clubshell, SE/FE; Northern riffleshell, SE/FE; Whitecatpaw pearlymussel, SE/FE; Kidneyshell, SC; Wavyrayed lampmussel, SC; Purple Lilliput, SC

**LAKE COUNTY:**

- 1) Briar Ridge 12: Earleaf foxglove, ST (plant); and Wet mesic sand prairie
- 2) Indianapolis Blvd. 12: Earleaf foxglove, ST (plant); Northern leopard frog, SC (amphibian); and Mesic prairie
- 3) Oak Savannah 12:
  - Plants: Great plains ladies' tresses, SE; Earleaf foxglove, ST; Forked aster, SR; Forked bluecurl, SR; Downy gentian, ST; Small sundrops, SR; Leiberg's witchgrass, ST; Smooth veiny pea, ST
  - Natural Communities: Mesic savannah; Mesic prairie; Dry mesic upland forest



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- Insects: Kansas prairie leafhopper, SE; Gemmed cordgrass borer, SR; Luscious willow sphinx, SR; Eucosma gigantiana, SR; Prairie sedge moth, ST; Bunchgrass skipper, ST; Giant sunflower borer moth, ST; Silphium borer moth, ST; 20+ more lepidopterans
- Amphibian: Northern leopard frog, SC

**Fish & Wildlife Comments:** We do not foresee any impacts to the Northern leopard frog or the barn owl as a result of this project.

With regard to impacts to the listed mussels and the gilt darter, the Division of Fish and Wildlife's Nongame Biologist researched "Disrupt II pheromone flakes" and "SPLAT liquid pheromone". He only reviewed a few documents about these pheromones, and doesn't believe either have been tested specifically in relation to their effects on freshwater mussels; however, he feels that neither seems to pose a threat to aquatic organisms, according to the documents.

However, the Tippecanoe River is one of the most diverse mussel streams in Indiana, and it contains the last reproducing populations for several species. This is also the only stream in the state that still contains gilt darters. Aerial application of these pheromones will likely include areas directly over the Tippecanoe River, so it seems that it would be prudent to at least minimize these applications as much as possible, simply to be as precautionary as possible, considering the importance of the Tippecanoe River and the mussel/fish fauna it contains.

In all, the devastating effects of uncontrolled gypsy moth infestations are well documented. Effects on non-target species are possible and care should be taken near areas that could possibly possess endangered or threatened species, or special concern species. The effects on target species will depend on a variety of factors and are impossible to predict with certainty. However, controlling the spread of gypsy moths is important to reduce the negative effects the caterpillars have on trees, particularly oaks. At this time, no harm to state or federal listed species resulting from the proposed control measures is known or anticipated.

**Contact Staff:**

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife

Our agency appreciates this opportunity to be of service. Please do not hesitate to contact the above staff member at (317) 232-4160 or 1-877-928-3755 (toll free) if we can be of further assistance.



Christie L. Stanifer  
Environ. Coordinator  
Division of Fish and Wildlife

Date: February 9, 2012



Indiana Department of Natural Resources

Mitchell E. Daniels, Jr., Governor  
Robert E. Carter, Jr., Director

Division of Historic Preservation & Archaeology • 402 W. Washington Street, W274 • Indianapolis, IN 46204-2739  
Phone 317-232-1646 • Fax 317-232-0693 • [dhpa@dnr.IN.gov](mailto:dhpa@dnr.IN.gov)



January 23, 2012

Philip T. Marshall  
Indiana Department of Natural Resources  
Division of Entomology and Plant Pathology  
402 W. Washington Street, Room W290W  
Indianapolis, IN 46204

State Agency: Indiana Department of Natural Resources

Re: Project information concerning the gypsy moth treatment sites for 2012 (DHPA #12873)

Dear Mr. Marshall:

This letter is intended to supersede our letter dated January 4, 2010.

Pursuant to Indiana Code 14-21-1 the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology ("DHPA") has conducted a review of the materials dated December 20, 2011 and received by the DHPA on January 3, 2012 for the above indicated project in Fulton, Kosciusko, Lake and Porter Counties, Indiana.

Based on our analysis, we do not believe that any historic properties will be altered, demolished, or removed by the proposed project.

If you have any further questions regarding this determination, please contact the DHPA. Questions about historic buildings or structures pertaining to this project should be directed to Miriam Burkett at (317) 233-3883 or [mburkett@dnr.IN.gov](mailto:mburkett@dnr.IN.gov). Additionally, in all future correspondence regarding the above indicated project, please refer to DHPA #12873.

Very truly yours,

James A. Glass, PhD  
Director, Division of Historic Preservation & Archaeology

JAG:MLB:mlb

[www.DNR.IN.gov](http://www.DNR.IN.gov)

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